

Enhancing Social Experiences and Interactions through Gamification:

Barmband

Project Report

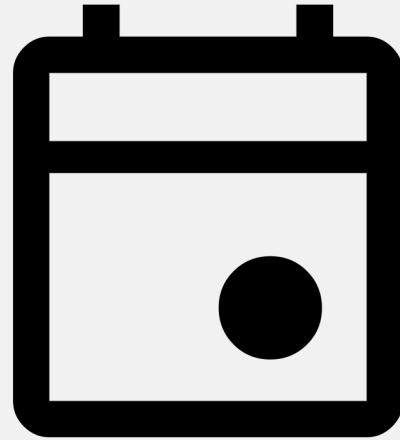
Vision

Vision

- Talking to strangers can be hard
- Icebreaker to promote interaction
- Gamification for motivation
- Opt-in
- Scalability

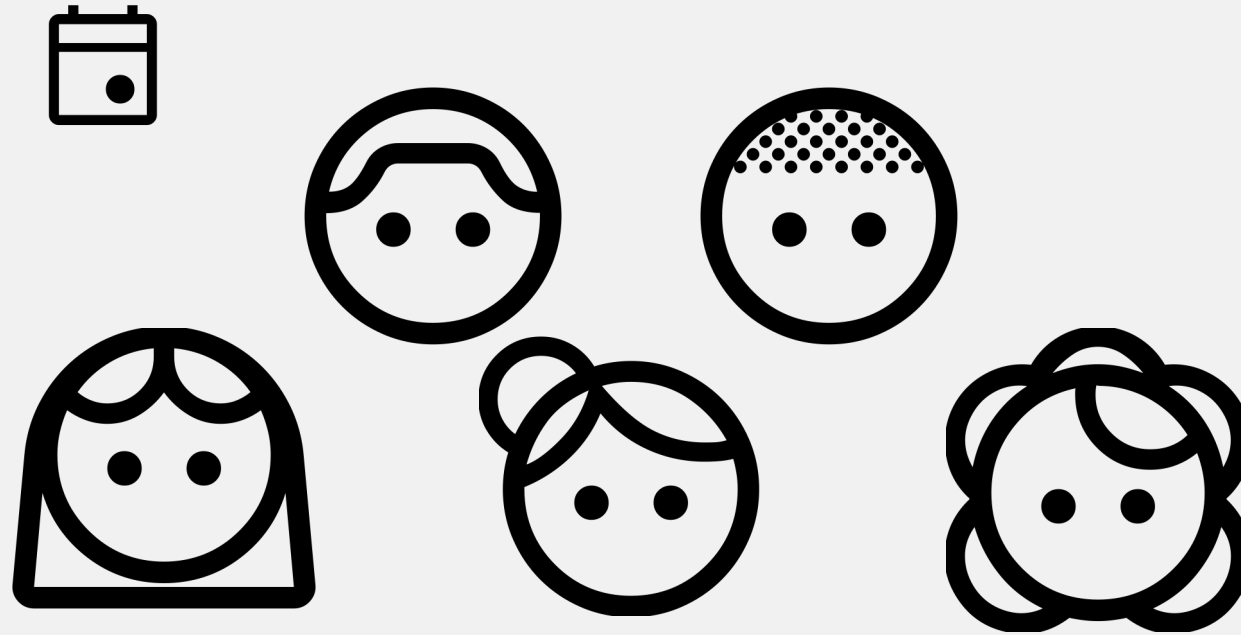
Use Case

Use Case

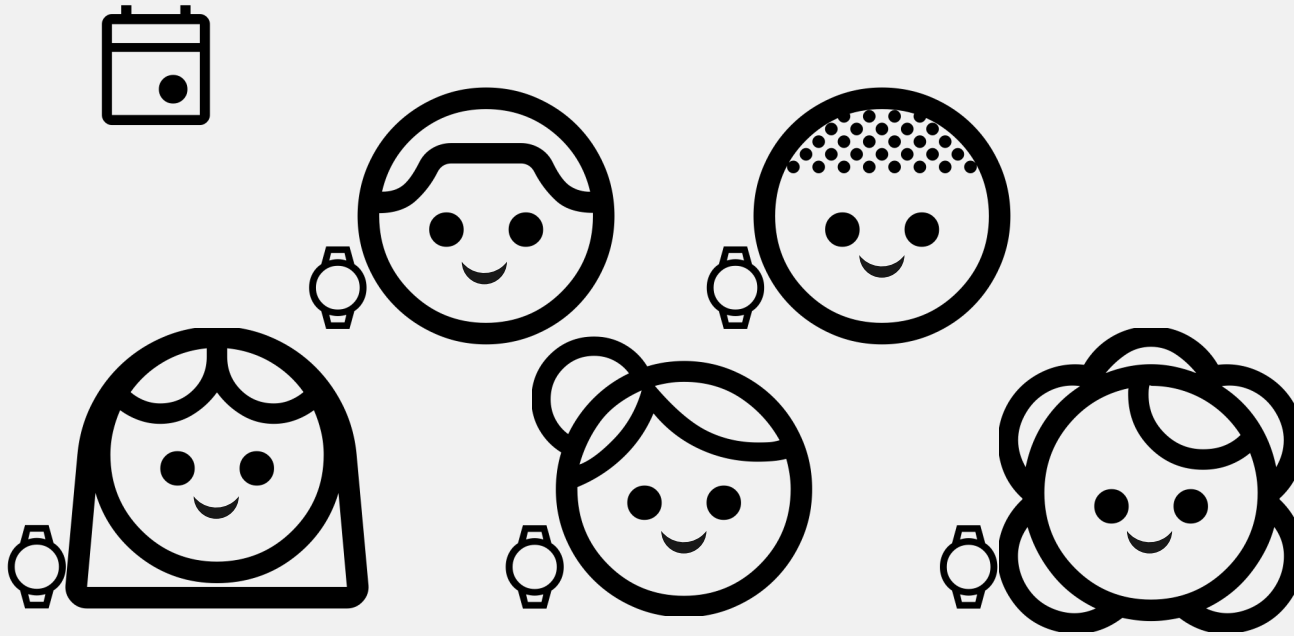


e.g. first week

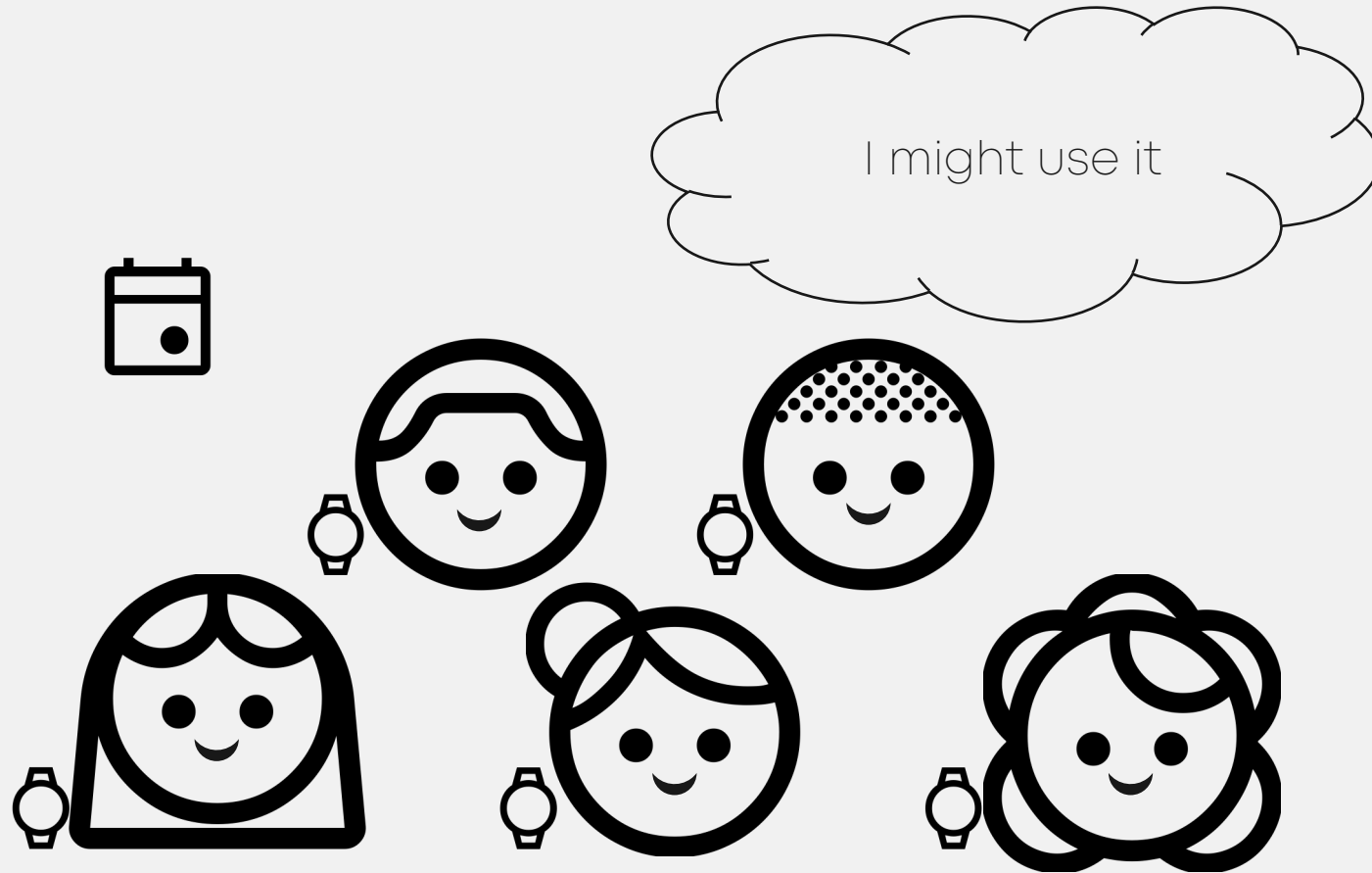
Use Case



Use Case



Use Case



Infrastructure

Infrastructure

Barmband

MQTT

Bandcommand

Barmband

BOM

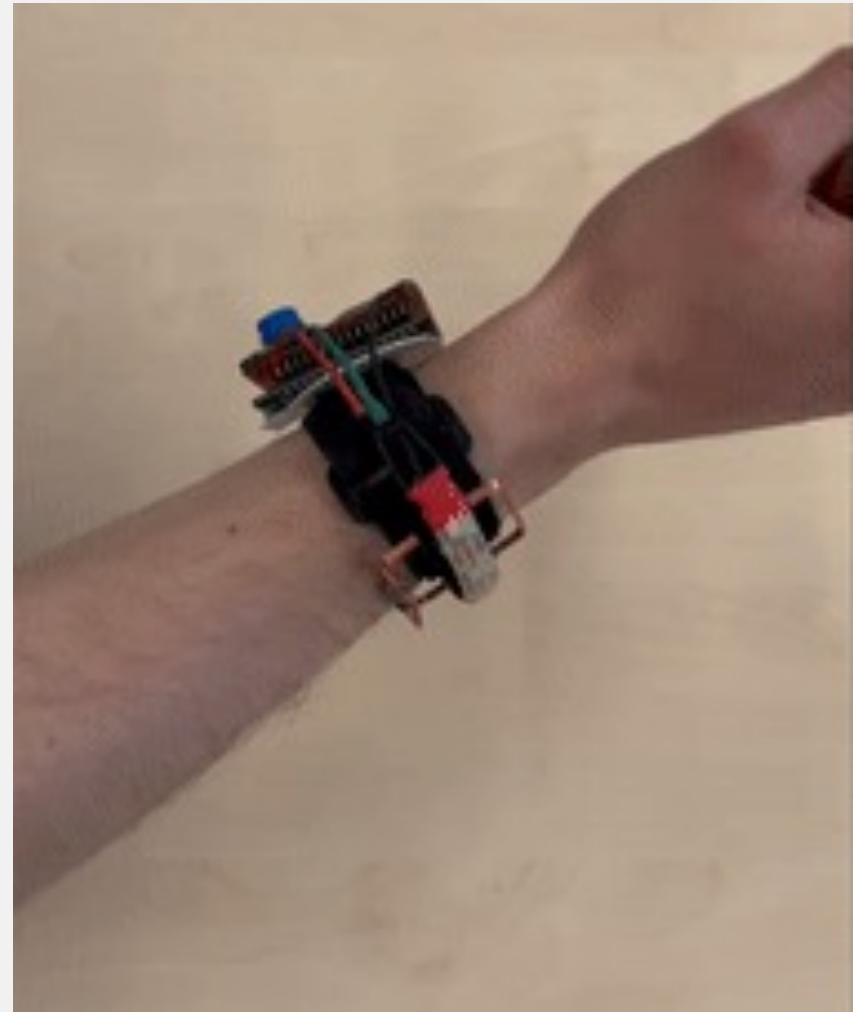
ESP32

RDM6300

WS2812

Velcro strips

Powerbank



Bandcommand

- Management software written in go
- Implements a MQTT client
- Handles the registration of Barmbands
- Parses MQTT messages
- Informs Barmbands about found pairs
- Determines the challenge color of Barmbands

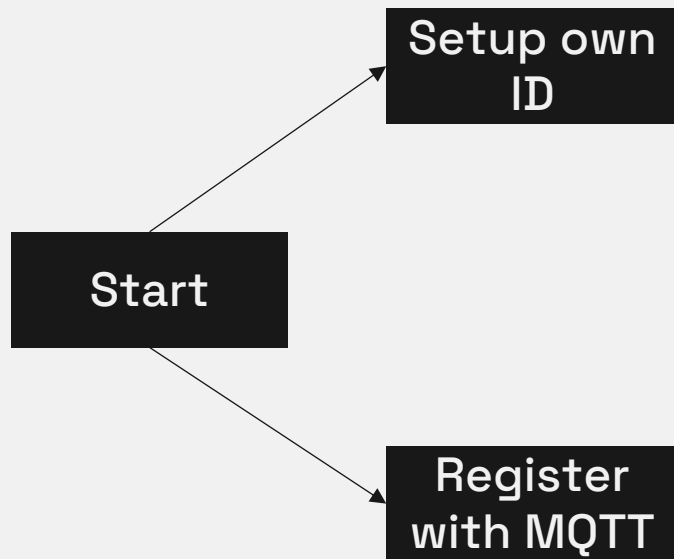
MQTT

- Communication link between Barmband and Bandcommand
- De facto standard for machine-machine communication
- Supports different quality of service levels (QoS)
- Messages are easy to debug
- Topics: setup, challenge, logging

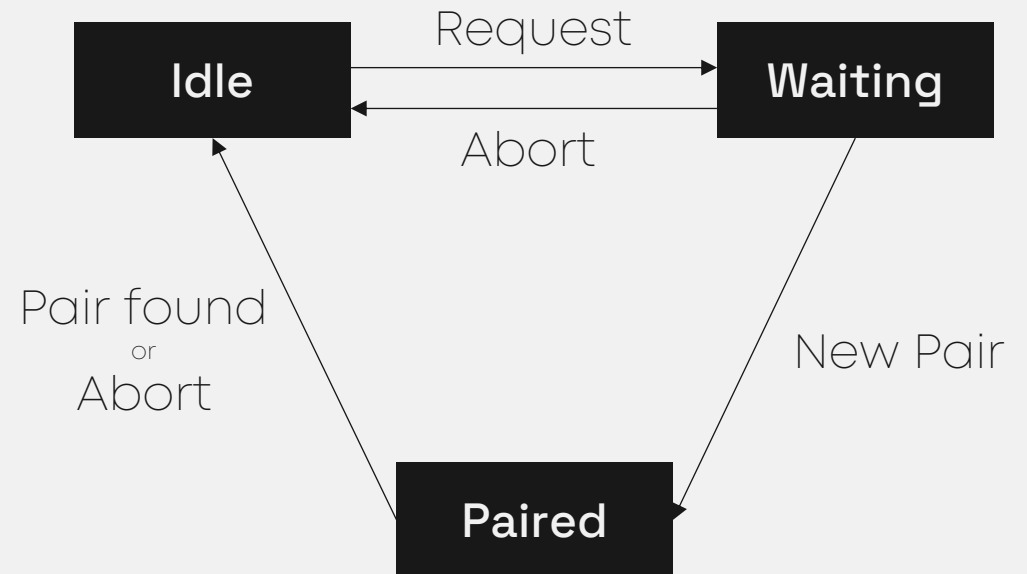
How it works

How it works

Setup



Game Loop



Limitations

Limitations

Fragility

Form Factor

Feedback

Health Checks

Power Source

Next Steps

Next Steps

- Rework RFID setup
- User Tests
- Power Supply
- Form factor
- Better User Feedback
- UI app
- Case
- Authorization